REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

After entry of the foregoing amendment, Claims 1, 3, 5-10, 21-23 and 25-62 are pending in the present application. Claims 1, 7, 21, 23, 28, 34, 35, 38, 43, 48, 49, 53, 56-58, and 62 are amended to address cosmetic matters of form. No new matter has been added.

By way of summary, the Examiner's Answer discusses the following issues: the specification is objected to for allegedly failing to provide proper antecedent basis for the claimed subject matter; Claims 1, 3, 5-10, 21-23, and 25-61 stand rejected under 35 U.S.C. § 112, first paragraph; Claims 1, 3, 5, 8-10, 21-23, 25, 26, 29-40, 44-55, and 59-61 stand rejected under 35 U.S.C. § 103 as being unpatentable over De Maine et al. (U.S. Patent No. 3,656,178, hereinafter De Maine), and further in view of Cellier et al. (U.S. Patent No. 5,884,269, hereinafter Cellier); Claims 6, 7, 27, and 28 stand rejected under 35 U.S.C. §103 as being unpatentable over De Maine and Cellier as applied to Claims 5 and 26, respectively, and further in view of Shimizu et al. (U.S. Patent No. 6,772,343, hereinafter Shimizu); Claims 41, 42, 56, and 57 stand rejected under 35 U.S.C. § 103 as being unpatentable over De Maine and Cellier as applied to Claim 1, and further in view of Weiss (U.S. Patent No. 5,479,512).

OBJECTION TO THE SPECIFICATION/
REJECTION UNDER 35 U.S.C. § 112, FIRST PARAGRAPH

The Examiner's Answer has provided an explanation of the objections/rejections pertaining to the specification and Claims 1, 3, 5-10, 21-23, and 25-61 under 35 U.S.C. § 112.

In view of the Examiner's explanation in the Answer of October 26, 2006, it appears as though the Examiner is not disagreeing with the Applicant's argument, but instead, has

taken issue with the language of the claims identified as conveying the aspect of the

Applicant's advancement at issue.[1] As such, Applicant has amended the independent claims

to restate the recitation of the independent selection of the control code from the control code

index.

As noted in Applicant's Appeal Brief, Applicant's specification describes multiple

embodiments in which an input data string is encrypted in cooperation with a control code

index. In some embodiments, the control code is selected based upon a data analysis (130),

such as shown in Figure 1 and the accompanying discussion of this Figure in the

specification, see at least page 6. Namely, a frequency analysis may be performed for

selecting the control code. On the other hand, the control code may be selected from the

control code index without analyzing the input data string. This embodiment is noted on

page 18 of the specification. In this embodiment, the selection of the control code from the

control code index is independent of specific characteristics of the input data string. As the

Examiner's Answer took issue only with the presentation of this content in the claims, and

not the substance of the disclosures noted above, Applicant submits that this aspect of the

objections/rejections has been overcome by the present amendment.[2]

Further, Applicant has amended the independent claims to recite that "the control

code index being defined prior to encryption at the processing device". Applicant has

amended the claims to remove the language which previously recited that the index was

"defined prior to receiving the input data string for encryption" at the processing device.

While Applicant maintains that this previous language was fully supported by the

specification and drawings, Applicant has removed this language in order to facilitate further

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[1] See the Examiner's Answer of October 26, 2006 at least at page 18.

[2] In this regard, Applicant expresses disappointment that this issue could not be worked out prior to the filing of the Appeal Brief. Applicant would have presented such amendments earlier in the prosecution had the Office been responsive to the Applicant's request for an interview to more precisely establish the Examiner's rationale for these objections/rejections. It is the Applicant's hope that in the future a more cooperative and efficient relationship will develop in order to reduce the workload of the Office.

prosecution of the case. As such, Applicant has removed this language without prejudice or disclaimer as this language may be reintroduced to the claims at a further point in prosecution as necessary.

Applicant respectfully submits that the language of the amended claims is fully supported by the specification.

Accordingly, Applicant respectfully requests that the objection to the specification and rejection of the claims under 35 U.S.C. § 112 be withdrawn.

REJECTION UNDER 35 U.S.C. § 103

The Examiner's Answer has outlined rejections of Claims 1, 3, 5, 8-10, 21-23, 25, 26, 29-40, 44-55, and 59-61 under 35 U.S.C. § 103 as being unpatentable over De Maine, in view of Cellier. The Answer contends that De Maine discloses all of the Applicant's claim features, with the exception of a control code index. However, the Official Action cites Cellier as disclosing this more detailed aspect of the Applicant's claimed advancement and states that it would have been obvious to one skilled in the art at the time the advancement was made to combine the cited references for arriving at the Applicant's claims. Applicant respectfully traverse the rejection.

Applicant's amended Claim 1 recites, *inter alia*, a method for encrypting an input data string including a plurality of bits of binary data, including:

> ... generating a control code associated with the determined order using the control code index, the generated control code being selected from the control code index independent of specific characteristics of the input data string;
> ... generating a position code by identifying positions of each of the 2^n different configurations of n bits in the input data string in accordance with the determined order...
> (emphasis added)

De Maine describes four compression techniques (i) Slow Mode Type 1 compression, (ii) Slow Mode Type 2 compression, (iii) Fast Mode Type 1 compression, and (iv) Fast Mode Type 2 compression. Slow Mode Type 1 compression and Slow Mode Type 2 compression, begin with an initial analysis of the input data string.[3] More specifically, those byte configurations that are identified is not appearing in the input data string or designated Type 1 codes and those byte configurations that are identified as appearing more than a certain number of times within the input data string are designated as Type 2 codes. Likewise, in Fast Mode Type 1 and Fast Mode Type 2 compression, a PCORDS table is utilized which is created based upon an analysis of input data string characteristics.

Cellier describes selecting a best table of Huffman codes through the use of a best table selector (103) on the basis of a minimum cost search. In other words, the table selector (103) selects that Huffman table which when used to encode the current frame of error samples will yield the most compact encoded representation.[4] As noted at column 13, lines 24-33 of Cellier, bits 0-7 of word (702) embody a TABLE SELECT field, which identifies a specific Huffman table that was used to encode a current block of audio data. In other words, for each block of encoded data, a TABLE SELECT field will identify a specific Huffman table which was used to encode the corresponding block.

Conversely, in an exemplary embodiment of the Applicant's claimed advancement, a method of encrypting an input data string including a plurality of bits of binary data is provided. The input data string is received for encryption at a processing device. A control code index is provided in a memory of the device. The control code index is defined prior to encryption at the processing device. The control code index includes a plurality of control codes. An order in which to query the presence of each of 2^n different configurations of n

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[3] De Maine at column 91, lines 47-65.
[4] Cellier at column 4, lines 46-56.

bits within the input data string is determined. A control code associated with the determined order is generated using the control code index. The generated control code is selected from the control code index <u>independent of specific characteristics of the data string</u>. A position code is generated by identifying positions of each of the 2^n different configurations of n bits in the input data string in accordance with the determined order. The control code and the position code are combined <u>as components of</u> an encrypted data string.

As noted above, <u>De Maine</u> compresses data in accordance with a compression algorithm which selects entries of a PCORDS table based upon an analysis of input data. Likewise, <u>Cellier</u> discusses the identification of a specific Huffman table based upon a minimum cost search. As such, neither of these references, alone, or in combination disclose or suggest generating a control code by selecting from a control code index, the selection being independent of specific characteristics of an input data string. Moreover, Applicant notes that the provision of a Huffman table ID in association with a correspondingly encoded block is not a combination of a control code and position code in an encrypted data string as claimed. Simply stated, the TABLE FIELD is included in a header as overhead to a data transmission. As such, even assuming that the Huffman table ID of <u>Cellier</u> were independently selected, it is not combined with a position code <u>as components of an encrypted data string</u> as recited in amended Claim 1 or any claim depending therefrom. Therefore, as neither <u>De Maine</u>, nor <u>Cellier</u>, alone, or in combination, disclose, or suggest, all of the features of Applicant's claims, Applicant respectfully requests that the rejection of Claims 1, 3, 5, 8-10, 21-23, 25, 26, 29-40, 44-55, and 59-61 under 35 U.S.C. § 103 be withdrawn.

The outstanding Official Action has rejected Claims 6, 7, 27, and 28 under 35 U.S.C. §103 as being unpatentable over <u>De Maine</u> and <u>Cellier</u> as applied to Claims 5 and 26, respectively, and further in view of <u>Shimizu</u>. The Official Action contends that <u>De Maine</u>

and Cellier disclose all of the Applicant's claim features, with the exception of generating a random block size. However, the Official Action cites Shimizu as disclosing this more detailed aspect of the Applicant's claimed advancement and states that it would have been obvious to one skilled in the art at the time the advancement was made to combine the cited references for arriving at the Applicant's claims. Applicant respectfully traverses the rejection.

As neither De Maine, nor Cellier, alone, or in combination, disclose all of the features of the Applicant's amended claims, and as Shimizu does not remedy the deficiency discussed above, Applicant respectfully submits that a *prima facie* case of obviousness has not been presented.

Accordingly, Applicant respectfully requests that the rejection of Claims 6, 7, 27, and 28 under 35 U.S.C. § 103 be withdrawn.

The outstanding Official Action has rejected Claims 41, 42, 56, and 57 under 35 U.S.C. § 103 as being unpatentable over De Maine and Cellier as applied to Claim 1, and further in view of Weiss (U.S. Patent No. 5,479,512). The Official Action contends that De Maine and Cellier disclose all of the Applicant's claim features, with the exception of XOR'ing coded data. However, the Official Action cites Weiss as disclosing this more detailed aspect of the Applicant's claimed advancement and states that it would have been obvious to one skilled in the art at the time the advancement was made to combine the cited references for arriving at the Applicant's claims. Applicant respectfully traverses the rejection.

As neither De Maine, nor Cellier, alone, or in combination, disclose all of the features of the Applicant's amended claims, and as Weiss does not remedy the deficiency discussed above, Applicant respectfully submits that a *prima facie* case of obviousness has not been presented.
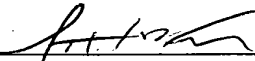
Accordingly, Applicant respectfully requests that the rejection of Claims 41, 42, 56, and 57 under 35 U.S.C. § 103 be withdrawn.

CONCLUSION

Consequently, in view of the foregoing amendment and remarks, it is respectfully submitted that the present Application, including Claims 1, 3, 5-10, 21- 23, and 25-62, is patently distinguished over the prior art, in condition for allowance, and such action is respectfully requested at an early date.

Respectfully submitted,

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